

IB IL 24 SDO 8-PAC - Safety module



2985754

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Safe, decentral, digital output module, IP20 degree of protection for the Inline product range. This module has four safe digital outputs with two-channel occupancy or eight safe digital outputs with single-channel occupancy.

Product description

The safety module is an output module from the Inline product range and is used in an INTERBUS-Safety system. The safety module can be used as a part of an Inline station at any point within an INTERBUS-Inline system. The transmission speed of the safety module can be set to 500 kBaud or 2 Mbaud using a switch. Only one transmission speed must be used uniformly within an INTERBUS system. This module has four safe digital outputs with two-channel occupancy or eight safe digital outputs with single-channel occupancy. The parameters of the outputs can be set in accordance with the application and make it possible to integrate actuators in the safe INTERBUS (INTERBUS-Safety).

In an INTERBUS Safety system, you can achieve the following safety integrity by using the safety module depending on the installation and parameterization:

- Up to category 4 according to the EN 954-1 standard
- Up to SIL 3 according to the standards EN 61508 and EN 62061
- Up to PL e according to the prEN ISO 13849-1 standard

The output data is exchanged between the safe INTERBUS controller and the module using safe messages (see UM DE INTERBUS-SAFETY SYS).

Your advantages

- PL e in accordance with EN ISO 13849-1
- SIL 3 according to IEC/EN 61508

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2985754 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | DN03 |
| Product key | DNA431 |
| GTIN | 4046356131636 |
| Weight per piece (including packing) | 244.9 g |
| Weight per piece (excluding packing) | 217.91 g |
| Customs tariff number | 85389091 |
| Country of origin | DE |

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Technical data

Dimensions

| | |
|--------------------|--------------------|
| Width | 48.8 mm |
| Height | 119.8 mm |
| Depth | 71.5 mm |
| Note on dimensions | Housing dimensions |

Notes

Utilization restriction

| | |
|----------|---|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---|

Material specifications

| | |
|-------|--------|
| Color | yellow |
|-------|--------|

Interfaces

Inline local bus

| | |
|--------------------|--------------------|
| Connection method | Inline data jumper |
| Transmission speed | 500 kbps / 2 Mbps |

System properties

Programming data

| | |
|----------------------|-----------------|
| ID code (dec.) | 175 |
| Process data channel | see safety data |

Output data

Digital:

| | |
|--|--|
| Output name | Digital outputs |
| Connection method | Spring-cage connection |
| Connection technology | 2-, 3-, 4-conductor |
| Number of outputs | 8 |
| Protective circuit | Overload protection, short-circuit protection of outputs |
| Output voltage | 24 V DC ($U_S - 1 V$) |
| Maximum output current per group | 3 A |
| Maximum output current per channel | 2 A |
| Max. current carrying capacity per output | See technical data |
| Maximum output current per module / terminal block | 3 A |
| Maximum output current per module | 3 A |
| Nominal output voltage | 24 V DC |
| Nominal load, inductive | see safety data |
| Nominal load, lamp | see safety data |

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| | |
|----------------------------------|-------------------------|
| Nominal load, ohmic | see safety data |
| Behavior with inductive overload | Output can be destroyed |

Product properties

| | |
|----------------------|---|
| Product type | I/O component |
| Product family | Inline |
| Application | IB-Safety |
| Type | modular |
| Diagnostics messages | Short-circuit or overload of the digital outputs Error message in diagnostics code (bus) and display by means of the LED on the motor |

Electrical properties

| | |
|---|--------|
| Maximum power dissipation for nominal condition | 150 W |
| Transmission medium | Copper |

Potentials: Communications power (U_L)

| | |
|----------------|-------------------------------|
| Supply voltage | 7.5 V DC (see safety data) |
| Current draw | max. 230 mA (see safety data) |

Potentials: Main circuit supply (U_M)

| | |
|----------------|---------------------------|
| Supply voltage | 24 V DC (see safety data) |
|----------------|---------------------------|

Potentials: Segment circuit supply (U_S)

| | |
|----------------|------------------------|
| Supply voltage | 24 V (see safety data) |
|----------------|------------------------|

Supply: Module electronics

| | |
|----------------------|------------------------------|
| Supply voltage | 24 V DC (via voltage jumper) |
| Supply voltage range | 19.2 V DC ... 30 V DC |

Electrical isolation/isolation of the voltage ranges

| | |
|---|------------------------|
| Test voltage: 5 V supply, incoming remote bus/7.5 V supply (bus logics) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 5 V supply, outgoing remote bus/7.5 V supply (bus logics) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 7.5 V supply (bus logics)/24 V supply (I/O) | 500 V AC, 50 Hz, 1 min |
| Test voltage: 24 V supply (I/O) / functional ground | 500 V AC, 50 Hz, 1 min |

Connection data

Connection technology

| | |
|-----------------|------------------|
| Connection name | Inline connector |
|-----------------|------------------|

Inline connector

| | |
|-----------------------------------|---|
| Connection method | Spring-cage connection |
| Conductor cross-section, rigid | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross-section, flexible | 0.2 mm ² ... 1.5 mm ² |
| Conductor cross-section AWG | 24 ... 16 |

Environmental and real-life conditions

Ambient conditions

| | |
|--|---|
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Degree of protection | IP20 |
| Air pressure (operation) | 80 hPa ... 108 kPa (up to 3000 m above sea level) |
| Air pressure (storage/transport) | 66 hPa ... 108 kPa (up to 3000 m above sea level) |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Permissible humidity (operation) | 10 % ... 85 % (Take suitable measures against increased air humidity within the permitted temperature range.) |
| Permissible humidity (storage/transport) | 10 % ... 85 % (Take suitable measures against increased air humidity within the permitted temperature range.) |

Standards and regulations

| | |
|------------------|---------------------------------------|
| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|

Mounting

| | |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

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Environmental product compliance

EU REACH SVHC

| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|
|-------------------------------------|----------------------------|

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